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EXAMINER RUTKOWSKI, JEFFREY M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,912

Applicant(s)

LLABRES ET AL

Examiner

JEFFREY M. RUTKOWSKI

Art Unit

2619

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-39, 41-62 and 66-70 is/are rejected.
- 7) ☒ Claim(s) 40 and 63-65 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/23/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-35 have been canceled.

Specification

1. The abstract of the disclosure is objected to because the abstract contains line numbers and a reference to a drawing on line 12. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 66-70** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe how to make or use the claimed network element.
4. **Claims 44-46, 48, 52-54, 56-57, 61 and 70** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. For **claims 44-46, 48, 52-54, 57, 61 and 66-70**, the use of the phrase "and/or" renders the claims indefinite because it is unclear as to whether or not both (first and second) control information is required to be transmitted or if only one (first or second) control information is required to be transmitted.

Art Unit: 2619

6. For **claim 56**, it is unclear what is meant by “mechanism of coding and decoding”.
7. For **claim 66**, the wherein clause that appears on line 29 of the claim renders **claims 66-70** indefinite. The wherein clause is directed to an operation the network element is overall adapted to perform. However, the claim does not cite the particular component of the network element that allows the network element as a whole to perform the recited functionality. Additionally, **claims 67-69** also cite a function the network element as a whole is configured to perform, but does not provide the component that allows the network element to perform the function.
8. **Claim 70** is indefinite because the claim only recites a network system without any components that make up the system.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. **Claims 36-39, 41-44, 46-53, 55, 58-60 and 62** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpert (US Pat 6,947,747) in view of Farese et al. (US Pat 4,996,685), hereinafter referred to as Farese, and Kanter et al. ("An Open Service Architecture for Adaptive Personal Mobile Communication"), hereinafter referred to as Kanter.

12. For **claim 36**, Stumpert teaches an architecture with a separate call control and bearer control transmission paths [**col. 1 line 30**]. A signaling path (third transmission path) is established before a bearer path (first transmission path) is established [**col. 5 line 26 to col. 6 line 67**].

13. Stumpert teaches the use of a Media GateWay (MGW) and a Radio Network Controller (RNC) to establish signaling and bearer paths in a wireless network [**figure 1**]. Stumpert's teaching regarding what constitutes a core network and what constitutes an access network are unclear. Kanter clarifies Stumpert's teachings by disclosing a bearer path (first transmission path) includes a RNC in first access network, a MGW located at the core network and an ISP network (first core network) and an Internet core network (second core network) that communicates with the ISP core network via MGW [**page 9, figure 1**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Kanter's network topology in Stumpert's invention to allow two devices to communicate with each other irrespective of the location of each device.

14. Stumpert's invention allows for another bearer path (second transmission path) to be established that directly connects one access network to another access network [**col. 1 lines 60-63**]. Kanter also provides an MGW that directly interfaces with two separate access networks [**page 9, figure 1**]. Stumpert further discloses that Integrated Services Digital Network (ISDN)

signaling is used in wireless networks [col. 1 lines 20-30]. However, Stumpert does not provide a bearer (transmission path) switching mechanism that provides an optimal routing after a transmission path has been established [col. 2 lines 46-60]. Farese teaches a bearer (transmission path) switching mechanism in an ISDN network that switches a bearer channel from a circuit switched connection to a packet switched connection [col. 24 lines 46-50, figure 5]. It would have been obvious to a person of ordinary skill in the art to use Farese's bearer switch mechanism in Stumpert's invention to provide the most optimal communication environment for a connection [Farese, abstract].

15. The combination of Stumpert and Farese discloses that a handshake occurs before the transmission path change takes effect [Farese, Figure 5].

16. For claim 37, figure 1 of Stumpert shows a control path (third transmission path) and a bearer path (first transmission path) are included in the same networks.

17. For claim 38, Stumpert does not teach a situation where only the bearer path is changed. Farese disclose a situation where only the bearer path is changed [Farese, abstract]. It would have been obvious to a person of ordinary skill in the art to only change a bearer path in Stumpert's invention to provide the most optimal communication environment for a connection [Farese, abstract].

18. For claim 39, Stumpert's teachings are unclear as to which elements make up the different aspects of a network. Kanter discloses an architecture where any transmission path includes a RNC (first access network element) in one access network and another RNC (a second access network element) in a second access network [Kanter, figure 1]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Kanter's

network topology in Stumpert's invention to allow two devices to communicate with each other irrespective of the location of each device.

19. For **claim 41**, Stumpert teaches the exchange of control messages to establish a control path [col. 5 lines 60-65].

20. For **claim 42**, Stumpert teaches a control message that includes address information [col. 6 lines 8-15].

21. For **claim 43**, Stumpert does not teach a handshake that includes the exchange of address information. Farese discloses a handshake between two nodes that includes the exchange of address information [figure 5]. It would have been obvious to a person of ordinary skill in the art to use Farese's handshake mechanism in Stumpert's invention to provide the most optimal communication environment for a connection [Farese, abstract].

22. For **claim 44**, Stumpert does not teach the use of a path change completed message. Farese discloses a path change completed complete message is used to indicate a successful transmission path change-over [Farese, figure 5]. It would have been obvious to a person of ordinary skill in the art to use Farese's path change completed message in Stumpert's invention to provide the most optimal communication environment for a connection [Farese, abstract].

23. For **claim 46**, Stumpert does not teach a network element capable of releasing a connection. Farese discloses a network element 50 that is capable of releasing channels [Farese, figure 5]. It would have been obvious to a person of ordinary skill in the art to use Farese's network element in Stumpert's invention to provide the most optimal communication environment for a connection [Farese, abstract].

24. For **claim 47**, Stumpert discloses an architecture where the optimal route is chosen.

Stumpert does not teach the dynamic change of routes. Farese discloses the dynamic exchange of routes [col. 6 lines 60-65]. It would have been obvious to a person of ordinary skill in the art to use dynamic routes in Stumpert's invention to provide the most optimal communication environment for a connection [**Farese, abstract**].

25. Because the combination of Stumpert and Farese disclose an architecture where optimal routing is used for a connection, the combination takes into account that a path will have to be changed to an original path if the original path provides the most optimal route.

26. For **claims 48 and 50**, Stumpert discloses the exchange of control information to establish bearer paths [col. 7 lines 50-65].

27. For **claim 49**, Stumpert does not teach a handshake that includes the exchange of address information. Farese discloses a handshake between two nodes that includes the exchange of address information [figure 5]. It would have been obvious to a person of ordinary skill in the art to use Farese's handshake mechanism in Stumpert's invention to provide the most optimal communication environment for a connection [**Farese, abstract**].

28. For **claim 51**, Stumpert does not teach the use of acknowledgements as control information. Farese discloses the use of acknowledgements as control information [**Farese, figure 5**]. It would have been obvious to a person of ordinary skill in the art to use Farese's acknowledgements as a control mechanism in Stumpert's invention to provide the most optimal communication environment for a connection [**Farese, abstract**].

29. For **claim 52**, Stumpert does not teach the use of a message to indicate the successful channel establishment. Farese disclose the use of Q.931 complete messages that are used to

indicate the successful establishment of a channel **[figure 5]**. It would have been obvious to a person of ordinary skill in the art to use Farese's Q.931 messages in Stumpert's invention to provide the most optimal communication environment for a connection **[Farese, abstract]**.

30. For **claim 53**, Stumpert does not teach a control message that is used to indicate a change of channel. Farese discloses a control message **510** that indicates a change in channel is requested. It would have been obvious to a person of ordinary skill in the art to use Farese's control message in Stumpert's invention to provide the most optimal communication environment for a connection **[Farese, abstract]**.

31. For **claim 55**, Stumpert does not teach the use of Circuit Switched calls. Kanter discloses Circuit Switched (CS) calls are used in ERAN and UTRAN environments **[Kanter, figure 1]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use CS calls in Stumpert's invention to conform to certain wireless standards.

32. For **claim 58**, Stumpert does not teach the use of Packet Switched calls. Kanter discloses of Packet Switched (PS) calls are also used in ERAN and UTRAN environments **[Kanter, figure 1]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use PS calls in Stumpert's invention to conform to certain wireless standards.

33. For **claim 59**, Stumpert teaches the bearer channel and signaling channel traditionally use the same path **[col. 1 lines 20-30]**.

34. For **claims 60 and 62**, Stumpert teaches the use of control information in a network **[figure 1]**. Stumpert does not teach the use of a packet network. Kanter discloses of Packet Switched (PS) calls are also used in ERAN and UTRAN environments **[Kanter, figure 1]**. It

would have been obvious to a person of ordinary skill in the art at the time of the invention to use PS calls in Stumpert's invention to conform to certain wireless standards.

35. **Claims 66-70** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al. (US Pat 6,314,300), hereinafter referred to as Nakashima, in view of Lescuyer et al. (US Pg Pub 2004/0038678), hereinafter referred to as Lescuyer.

36. For **claim 66**, Nakashima discloses a network device **2** with two call control units **11, 12** interconnected via distribution unit **17** [**figure 2**].

37. Figure 2 of Nakashima also discloses the network device **2** has an interface to communicate with a mobile terminal. Nakashima does not disclose the use of a second interface. Lescuyer discloses a UMTS switch that has an interface for communicating with a transceiver station and a core network [**figure 1**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Lescuyer's interfaces in Nakashima's invention to allow for a mobile terminal to be managed by the core network [**Lescuyer, 0011**].

38. For **claims 67-69**, Nakashima's architecture is capable of being adapted to perform releasing, assessing and establishing functions.

39. For **claim 70**, Nakashima discloses a network device **2** with two call control units **11, 12** interconnected via distribution unit **17** [**figure 2**].

40. Figure 2 of Nakashima also discloses the network device **2** has an interface to communicate with a mobile terminal. Nakashima does not disclose the use of a second interface. Lescuyer discloses a UMTS switch that has an interface for communicating with a transceiver station and a core network [**figure 1**]. It would have been obvious to a person of ordinary skill in

the art at the time of the invention to use Lescuyer's interfaces in Nakashima's invention to allow for a mobile terminal to be managed by the core network [**Lescuyer, 0011**].

41. The combination of Nakashima and Lescuyer disclose the use of a network.

Allowable Subject Matter

42. **Claims 40 and 63-65** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey M Rutkowski
Patent Examiner
05/22/2008

/Hassan Kizou/
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